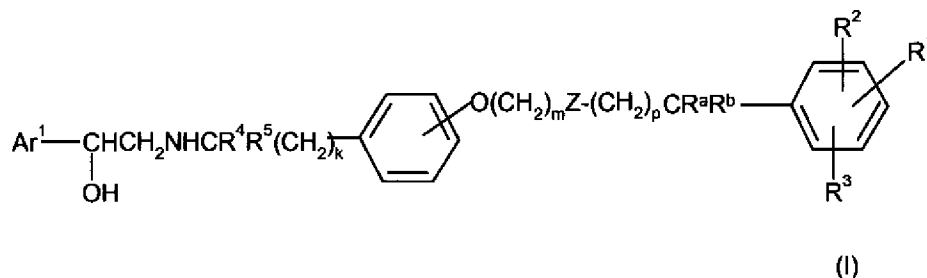


**Amendments To The Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

What is claimed is:

1. (Original) A compound of formula (I)



or a salt, solvate, or physiologically functional derivative thereof, wherein:

k is an integer of from 1 to 3;

m is an integer of from 2 to 4;

p is an integer of from 0 to 3;

Z is O or CH<sub>2</sub>-

R<sup>1</sup> is selected from hydrogen, C<sub>1-6</sub>alkyl, hydroxy, C<sub>1-6</sub>alkoxy, cyano, nitro, halo, C<sub>1-6</sub>haloalkyl, XCO<sub>2</sub>R<sup>8</sup>, -XC(O)NR<sup>7</sup>R<sup>8</sup>, -XNR<sup>6</sup>C(O)R<sup>7</sup>, -XNR<sup>6</sup>C(O)NR<sup>7</sup>R<sup>8</sup>, -XNR<sup>6</sup>C(O)NC(O)NR<sup>7</sup>R<sup>8</sup>, -XNR<sup>6</sup>SO<sub>2</sub>R<sup>7</sup>, -XSO<sub>2</sub>NR<sup>9</sup>R<sup>10</sup>, XSR<sup>6</sup>, XSOR<sup>6</sup>, XSO<sub>2</sub>R<sup>6</sup>, XNR<sup>6</sup>SO<sub>2</sub>NR<sup>7</sup>R<sup>8</sup>, XNR<sup>6</sup>SO<sub>2</sub>NR<sup>7</sup>COOR<sup>7</sup>, -XNR<sup>7</sup>R<sup>8</sup>, -XNR<sup>6</sup>C(O)OR<sup>7</sup>,

or R<sup>1</sup> is selected from -X-aryl, -X-hetaryl, or -X-(aryloxy), each optionally substituted by 1 or 2 groups independently selected from hydroxy, C<sub>1-6</sub>alkoxy, halo, C<sub>1-6</sub>alkyl,

C<sub>1-6</sub>haloalkyl, -NR<sup>6</sup>C(O)R<sup>7</sup>, SR<sup>6</sup>, SOR<sup>6</sup>, -SO<sub>2</sub>R<sup>6</sup>, -SO<sub>2</sub>NR<sup>9</sup>R<sup>10</sup>, -CO<sub>2</sub>R<sup>8</sup>, -NR<sup>7</sup>R<sup>8</sup>, or hetaryl optionally substituted by 1 or 2 groups independently selected from hydroxy, C<sub>1-6</sub>alkoxy, halo, C<sub>1-6</sub>alkyl, or C<sub>1-6</sub>haloalkyl;

X is -(CH<sub>2</sub>)<sub>q</sub>- or C<sub>2-6</sub> alkenylene;

q is an integer from 0 to 6;

$R^6$  and  $R^7$  are independently selected from hydrogen,  $C_{1-6}$ alkyl,  $C_{3-7}$ cycloalkyl, aryl, hetaryl, hetaryl( $C_{1-6}$ alkyl)- and aryl( $C_{1-6}$ alkyl)- and  $R^6$  and  $R^7$  are each independently optionally substituted by 1 or 2 groups independently selected from halo,  $C_{1-6}$ alkyl,

$C_{3-7}$  cycloalkyl,  $C_{1-6}$  alkoxy,  $C_{1-6}$ haloalkyl,  $-NHC(O)(C_{1-6}alkyl)$ ,  $-SO_2(C_{1-6}alkyl)$ ,  $-SO_2(aryl)$ ,  $-CO_2H$ , and  $-CO_2(C_{1-4}alkyl)$ ,  $-NH_2$ ,  $-NH(C_{1-6}alkyl)$ , aryl( $C_{1-6}alkyl$ )-, aryl( $C_{2-6}alkenyl$ )-, aryl( $C_{2-6}alkynyl$ )-, hetaryl( $C_{1-6}alkyl$ )-,  $-NHSO_2aryl$ ,  $-NH(hetarylC_{1-6}alkyl)$ ,  $-NHSO_2hetaryl$ ,  $-NHSO_2(C_{1-6}alkyl)$ ,  $-NHC(O)aryl$ , or  $-NHC(O)hetaryl$ :

$R^8$  is selected from hydrogen,  $C_{1-6}$ alkyl and  $C_{3-7}$  cycloalkyl;

or  $R^7$  and  $R^8$ , together with the nitrogen atom to which they are bonded, form a 5-, 6- or 7- membered nitrogen – containing ring;

$R^9$  and  $R^{10}$  are independently selected from hydrogen,  $C_{1-6}$ alkyl,  $C_{3-7}$ cycloalkyl, aryl, hetaryl, hetaryl( $C_{1-6}$ alkyl)- and aryl( $C_{1-6}$ alkyl)-, or  $R^9$  and  $R^{10}$ , together with the nitrogen to which they are bonded, form a 5-, 6-, or 7- membered nitrogen containing ring;

and  $R^9$  and  $R^{10}$  are each optionally substituted by one or two groups independently selected from halo,  $C_{1-6}$ alkyl, and  $C_{3-7}$ cycloalkyl,  $C_{1-6}$ haloalkyl;

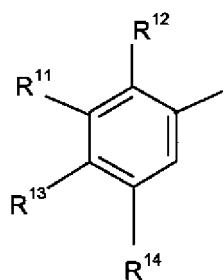
$R^2$  is selected from hydrogen, hydroxy,  $C_{1-6}$ alkyl,  $C_{1-6}$ alkoxy, halo, aryl, aryl( $C_{1-6}alkyl$ )-,  $C_{1-6}$ haloalkoxy, and  $C_{1-6}$ haloalkyl;

$R^3$  is selected from hydrogen, hydroxy,  $C_{1-6}$ alkyl,  $C_{1-6}$ alkoxy, halo, aryl, aryl( $C_{1-6}alkyl$ )-,  $C_{1-6}$ haloalkoxy, and  $C_{1-6}$ haloalkyl;

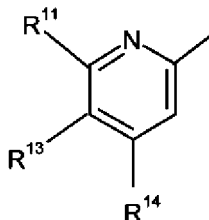
$R^a$  and  $R^b$  are independently selected from hydrogen and  $C_{1-4}$  alkyl.

$R^4$  and  $R^5$  are independently selected from hydrogen and  $C_{1-4}$  alkyl with the proviso that the total number of carbon atoms in  $R^4$  and  $R^5$  is not more than 4;  
and

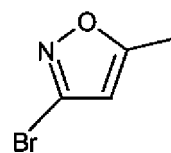
$Ar^1$  is a group selected from



(a)

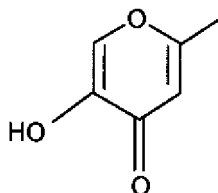


(b)



(c)

and



(d)

wherein  $R^{11}$  represents halogen,  $-(CH_2)_nOR^{15}$ ,  $-NR^{15}C(O)R^{16}$ ,  $-NR^{15}SO_2R^{16}$ ,  $-SO_2NR^{15}R^{16}$ ,  $-NR^{15}R^{16}$ ,  $-OC(O)R^{17}$  or  $OC(O)NR^{15}R^{16}$ ,  
and  $R^{12}$  represents hydrogen, halogen or  $C_{1-4}$  alkyl;

or  $R^{11}$  represents  $-NHR^{18}$  and  $R^{12}$  and  $-NHR^{18}$  together form a 5- or 6-membered heterocyclic ring;

$R^{13}$  represents hydrogen, halogen,  $-OR^{15}$  or  $-NR^{15}R^{16}$ ;

$R^{14}$  represents hydrogen, halogen, halo $C_{1-4}$  alkyl,  $-OR^{15}$ ,  $-NR^{15}R^{16}$ ,  $-OC(O)R^{17}$  or  $OC(O)NR^{15}R^{16}$ ;

$R^{15}$  and  $R^{16}$  each independently represents hydrogen or  $C_{1-4}$  alkyl, or in the groups

$-NR^{15}R^{16}$ ,  $-SO_2NR^{15}R^{16}$  and  $-OC(O)NR^{15}R^{16}$ ,  $R^{15}$  and  $R^{16}$  independently represent hydrogen or  $C_{1-4}$  alkyl or together with the nitrogen atom to which they are attached form a 5-, 6- or 7- membered nitrogen-containing ring,

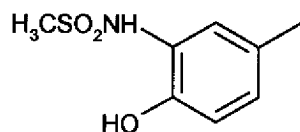
$R^{17}$  represents an aryl group which may be unsubstituted or substituted by one or more substituents selected from halogen,  $C_{1-4}$  alkyl, hydroxy,  $C_{1-4}$  alkoxy or halo  $C_{1-4}$  alkyl; and

$n$  is zero or an integer from 1 to 4;

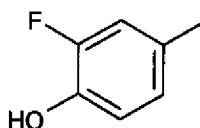
provided that in the group (a), when  $R^{11}$  represents  $-(CH_2)_nOR^{15}$  and  $n$  is 1,  $R^{13}$  is not OH.

2. (Original) A compound according to claim 1 wherein  $Ar^1$  is selected from group (a) or group (b), as defined in claim 1.

3. (Original) A compound of formula (I) according to claim 2 wherein group (a) is selected from a group of formula (iv) or (xix):

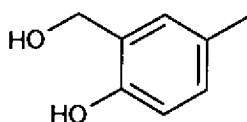


(iv)



(xix)

4. (Original) A compound of formula (I) according to claim 2 wherein group (b) is a group of formula (iii):



(iii)

5. (Currently Amended) A compound of formula (I) according to claim 1 ~~any of claims 1-4~~ wherein  $R^1$  is selected from hydrogen,  $C_{1-4}$ alkyl, hydroxy,

cyano, C<sub>1-6</sub>alkoxy, halo, XCO<sub>2</sub>R<sup>8</sup>, XNR<sup>6</sup>COR<sup>7</sup>, XCONR<sup>7</sup>R<sup>8</sup>, -NR<sup>6</sup>C(O)NR<sup>7</sup>R<sup>8</sup>, XSOR<sup>6</sup>, XNR<sup>6</sup>SO<sub>2</sub>NR<sup>7</sup>R<sup>8</sup>, XNR<sup>6</sup>SO<sub>2</sub>NR<sup>7</sup>CO<sub>2</sub>R<sup>7</sup> and -NR<sup>6</sup>SO<sub>2</sub>R<sup>7</sup>

wherein R<sup>6</sup> and R<sup>7</sup> are as defined above.

6. (Original) A compound of formula (I) according to claim 5 wherein R<sup>1</sup> is selected from XC(O)NR<sup>7</sup>R<sup>8</sup> or hydrogen.

7. (Currently Amended) A compound of formula (I) according to claim 1 ~~any of claims 1-6~~ wherein R<sup>2</sup> and R<sup>3</sup> each represent hydrogen.

8. (Currently Amended) A compound of formula (I) according to claim 1 ~~any of claims 1-7~~ wherein R<sup>4</sup> and R<sup>5</sup> each represent hydrogen.

9. (Currently Amended) A compound of formula (I) according to claim 1 ~~any of claims 1-8~~ wherein R<sup>a</sup> and R<sup>b</sup> each represent hydrogen.

10. (Currently Amended) A compound of formula (I) according to claim 1 which is selected from the group consisting of:

3-{{2-(4-{2-(((2R)-2-hydroxy-2-{4-hydroxy-3-  
[(methylsulfonyl)amino]phenyl)ethyl)amino)ethyl}phenoxy)ethoxy)methyl}benza  
mide;

N-{2-hydroxy-5-[(1R)-1-hydroxy-2-{{2-[4-(4-  
phenylbutoxy)phenyl]ethyl)amino)ethyl}phenyl]methanesulfonamide;  
N-(5-{{(1R)-2-[(2-[4-[2-(benzyloxy)ethoxy]phenyl)ethyl)amino]-1-hydroxyethyl}-2-  
hydroxyphenyl)methanesulfonamide;

3-{{2-[4-(2-{{{2R}-2-(3-fluoro-4-hydroxyphenyl)-2-  
hydroxyethyl}amino)ethyl}phenoxy]ethoxy)methyl}benzamide;

4-{{(1R)-2-[(2-[4-[2-(benzyloxy)ethoxy]phenyl)ethyl)amino]-1-hydroxyethyl}-2-  
fluorophenol;

2-fluoro-4-[(1R)-1-hydroxy-2-{{2-[4-(4-  
phenylbutoxy)phenyl]ethyl)amino)ethyl]phenol;

3-[[2-[4-[2-{{2-hydroxy-2-[5-hydroxy-6-(hydroxymethyl)pyridin-2-  
yl]ethyl}amino)ethyl}phenoxy]ethoxy)methyl]benzamide;

6-{2-[(2-{4-[2-(benzyloxy)ethoxy]phenyl}ethyl)amino]-1-hydroxyethyl}-2-(hydroxymethyl)pyridin-3-ol;  
2-(hydroxymethyl)-6-[1-hydroxy-2-({2-[4-(4-phenylbutoxy)phenyl]ethyl}amino)ethyl]pyridin-3-ol;

and salts thereof, solvates thereof and physiologically functional derivatives thereof.

11. (Currently Amended) A method for the prophylaxis or treatment of a clinical condition in a mammal, ~~such as a human~~, for which a selective  $\beta_2$ -adrenoreceptor agonist is indicated, which comprises administering ~~administration~~ of a therapeutically effective amount of a compound of formula (I), according to claim 1 ~~any of claims 1-10~~, or a pharmaceutically acceptable salt, solvate, or physiologically functional derivative thereof.

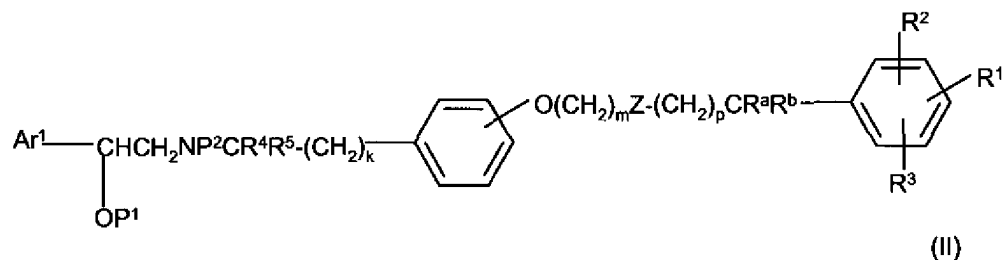
12-13 (Canceled)

14. (Currently Amended) A pharmaceutical formulation comprising a compound of formula (I), according to claim 1 ~~any of claims 1-10~~, or a pharmaceutically acceptable salt, solvate, or physiologically functional derivative thereof, and a pharmaceutically acceptable carrier or excipient, and optionally one or more other therapeutic ingredients.

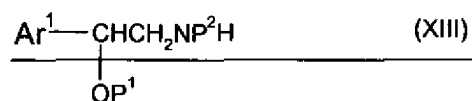
15. (Canceled)

16. (Currently Amended) A process for the preparation of a compound of formula (I), according to claim 1 ~~any of claims 1-10~~, or a salt, solvate, or physiologically functional derivative thereof, which comprises:

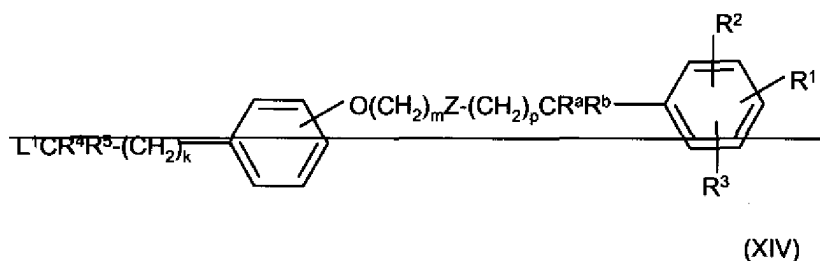
~~(a) deprotection of~~ deprotecting a protected intermediate, ~~for example~~ of formula (II):



or a salt or solvate thereof, wherein  $\text{Ar}^1$ ,  $\text{R}^1$ ,  $\text{R}^2$ ,  $\text{R}^3$ ,  $\text{R}^a$ ,  $\text{R}^b$ ,  $\text{R}^4$ ,  $\text{R}^5$ ,  $\text{Z}$ ,  $k$ ,  $m$ , and  $p$  are as defined for the compounds of formula (I), and  $\text{P}^1$  and  $\text{P}^2$  are each independently either hydrogen or a protecting group provided that at least one of  $\text{P}^1$  and  $\text{P}^2$  is a protecting group; or  
(b) alkylation of an amine of formula (XIII)

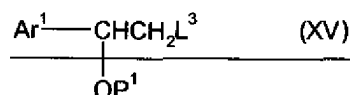


wherein  $\text{Ar}^1$  is as defined above for compounds of formula (I) and  $\text{P}^1$  and  $\text{P}^2$  are each independently either hydrogen or a protecting group, with a compound of formula (XIV):

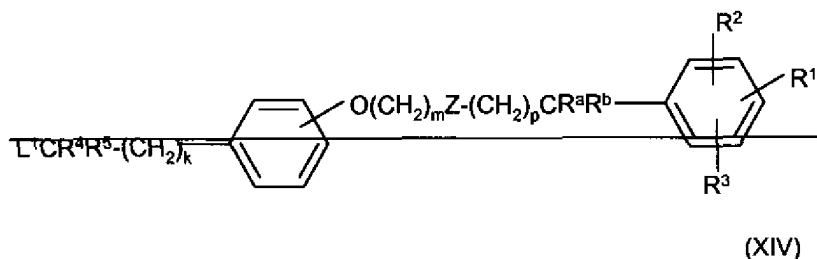


wherein  $\text{R}^1$ ,  $\text{R}^2$ ,  $\text{R}^3$ ,  $\text{R}^4$ ,  $\text{R}^5$ ,  $\text{R}^a$ ,  $\text{R}^b$ ,  $\text{Z}$ ,  $m$ , and  $p$  are as defined for the compound of formula (I) and  $\text{L}^1$  is a leaving group;

(c) reacting a compound of formula (XV):

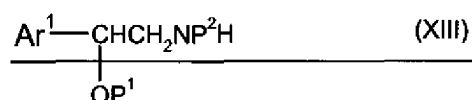


wherein  $P^1$  and  $Ar^1$  are as hereinbefore defined and  $L^3$  is a leaving group, with an amine of formula (XVI):



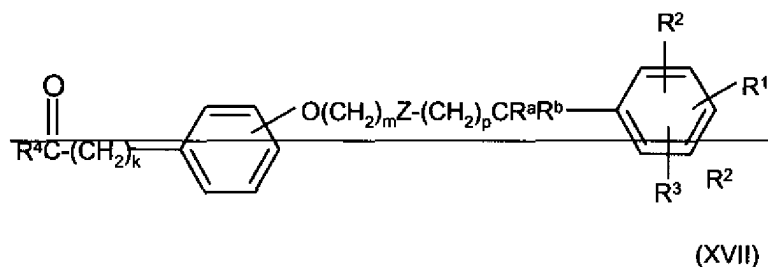
wherein  $R^1$ ,  $R^2$ ,  $R^3$ ,  $R^4$ ,  $R^5$ ,  $R^a$ ,  $R^b$ ,  $Z$ ,  $k$ ,  $m$ ,  $p$  and  $P^2$  are as hereinbefore defined; or

d) reacting a compound of formula (XIII):



as hereinbefore defined,

with a compound of formula (XVII):



under conditions suitable to effect reductive amination.

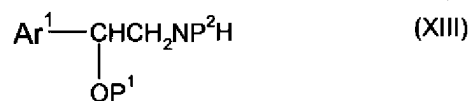
wherein said deprotecting step is optionally followed by one or more of the following steps in any order selected from the group consisting of in any order:

- (i) optional removal of removing any protecting groups;
- (ii) optional separation of separating an enantiomer from a mixture of enantiomers; and
- (iii) optional conversion of converting the product to a corresponding salt, solvate, or physiologically functional derivative thereof.

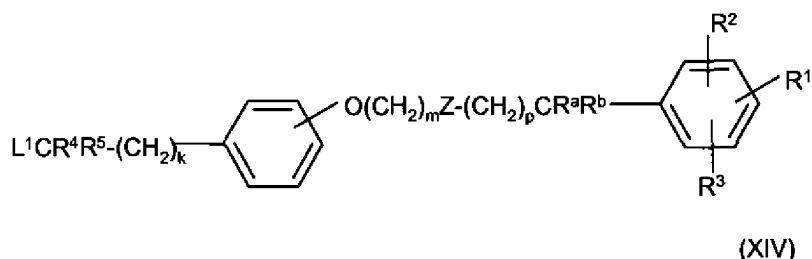


17. (New) A process for the preparation of a compound of formula (I), according to claim 1, or a salt, solvate, or physiologically functional derivative thereof, which comprises:

alkylating an amine of formula (XIII)



wherein  $\text{Ar}^1$  is as defined above for compounds of formula (I) and  $\text{P}^1$  and  $\text{P}^2$  are each independently either hydrogen or a protecting group, with a compound of formula (XIV):



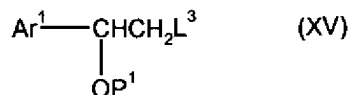
wherein  $\text{R}^1$ ,  $\text{R}^2$ ,  $\text{R}^3$ ,  $\text{R}^4$ ,  $\text{R}^5$ ,  $\text{R}^a$ ,  $\text{R}^b$ ,  $\text{Z}$ ,  $m$ , and  $p$  are as defined for the compound of formula (I) and  $\text{L}^1$  is a leaving group;

wherein said alkylating step is optionally followed by one or more of the following steps in any order selected from the group consisting of:

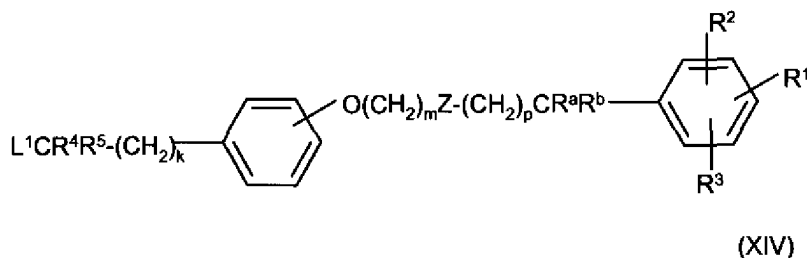
- (i) removing any protecting groups;
- (ii) separating an enantiomer from a mixture of enantiomers; and
- (iii) converting the product to a corresponding salt, solvate, or physiologically functional derivative thereof.

18. (New) A process for the preparation of a compound of formula (I), according to claim 1, or a salt, solvate, or physiologically functional derivative thereof, which comprises:

reacting a compound of formula (XV):



wherein  $\text{P}^1$  is either hydrogen or a protecting group and  $\text{Ar}^1$  are as hereinbefore defined and  $\text{L}^3$  is a leaving group, with an amine of formula (XVI):



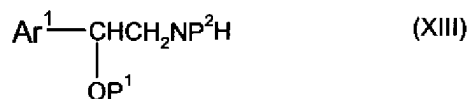
wherein  $\text{R}^1$ ,  $\text{R}^2$ ,  $\text{R}^3$ ,  $\text{R}^4$ ,  $\text{R}^5$ ,  $\text{R}^a$ ,  $\text{R}^b$ ,  $\text{Z}$ ,  $k$ ,  $m$ ,  $p$  and  $\text{P}^2$  are as hereinbefore defined, and  $\text{L}^1$  is a leaving group;

wherein said reacting step is optionally followed by one or more of the following steps in any order selected from the group consisting of:

- (i) removing any protecting groups;
- (ii) separating an enantiomer from a mixture of enantiomers; and
- (iii) converting the product to a corresponding salt, solvate, or physiologically functional derivative thereof.

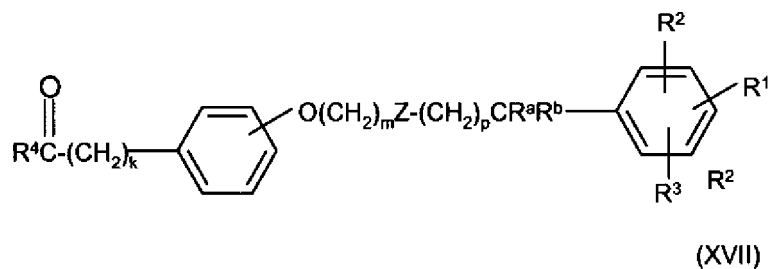
19. (New) A process for the preparation of a compound of formula (I), according to claim 1, or a salt, solvate, or physiologically functional derivative thereof, which comprises:

reacting a compound of formula (XIII):



as hereinbefore defined, and wherein  $\text{P}^1$  and  $\text{P}^2$  are each independently either hydrogen or a protecting group provided that at least one of  $\text{P}^1$  and  $\text{P}^2$  is a protecting group,

with a compound of formula (XVII):



under conditions suitable to effect reductive amination;

wherein said reacting step is optionally followed by one or more of the following steps in any order selected from the group consisting of:

- (i) removing any protecting groups;
- (ii) separating an enantiomer from a mixture of enantiomers; and
- (iii) converting the product to a corresponding salt, solvate, or physiologically functional derivative thereof.

20. (New) The method according to Claim 11, wherein said mammal is a human.